

## **MINUTES**

### **CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE (CTCDC) MEETING**

Sacramento, February 23, 2006

The first CTCDC meeting of year 2006 was held in Sacramento, on February 23, 2006.

Chairman Farhad Mansourian opened the meeting at 9:05 a.m. with the introduction of Committee members and guests. Chairman Mansourian thanked California Highway Patrol (CHP) for hosting the meeting. The following Members, alternates and guests were in attendance:

<b><u>ATTENDANCE</u></b>	<b><u>ORGANIZATION</u></b>	<b><u>TELEPHONE</u></b>
<b>Members (Voting)</b>		
Farhad Mansourian Chairman	CA State Association of Counties Marin County	(415) 499-6570
Hamid Bahadori Vice Chairman	Auto Club of Southern California	(714) 885-2326
John Fisher	League of CA Cities City of Los Angeles	(213) 972-8424
Devinder Singh (Alternate)	Caltrans	(916) 654-4551
Ed von Borstel	League of CA Cities City of Modesto	(209) 577-5266
Merry Banks	California State Automobile Association	(415) 565-2297
Jacob Babico	CA State Association of Counties San Bernardino County	(909) 387-8186
<b>ALTERNATE</b>		
Gian Aggarwal	League of CA Cities City of Vacaville	(707) 449-5349

**ATTENDEES**

**ORGANIZATION**

**TELEPHONE/E-Mail**

Joe Jeffrey	Road-Tech Safety Services	<a href="mailto:joe@roadtech.com">joe@roadtech.com</a> (530) 676-7797
Conard Lapinski	Amador County	(209) 223-6429
Jim Lissner	Highway Robbery. Net	<a href="mailto:editor@highwayrobbery.net">editor@highwayrobbery.net</a>
Jason Nutt	City of Santa Rosa	<a href="mailto:jnutt@srcity.org">jnutt@srcity.org</a>
Chand Dornsife	RHSPI	<a href="mailto:cdornsife@bhspi.org">cdornsife@bhspi.org</a>
Bret P Goss	First Call Flagger	<a href="mailto:Better@firstcallflagging.com">Better@firstcallflagging.com</a>
Terry Gibso	11444 B Ave, Auburn, CA 95603 DPW, Road Division	
Tedi Jackson	City of San Diego	<a href="mailto:tjackson@sandiego.gov">tjackson@sandiego.gov</a> (619) 527-3121
Dennis Dunn	Co. of Sacramento	<a href="mailto:dunnd@saccounty.net">dunnd@saccounty.net</a>
Matt Schmitz	FHWA	<a href="mailto:mathew.schmitz@fhwa.dot.gov">mathew.schmitz@fhwa.dot.gov</a>
Joe Garrison	Valley Slurry Seal	<a href="mailto:joe.garrison@slurry.com">joe.garrison@slurry.com</a>
Oliver Gajda	City/CO. of SF	<a href="mailto:oliver.gajda@sfmta.com">oliver.gajda@sfmta.com</a>
Javad Mirabdal	City/CO. of SF	<a href="mailto:javad.mirabdal@sfmta.com">javad.mirabdal@sfmta.com</a>
Johnny Bhullar	Caltrans-HQ	<a href="mailto:johnny_bhullar@dot.ca.gov">johnny_bhullar@dot.ca.gov</a>

## **MINUTES**

Adoption of November 17, 2005 CTCDC meeting minutes.

**Motion:** Moved by Jacob Babico, seconded by Hamid Bahadori, to adopt the Minutes of November 17, 2005 CTCDC meeting held in Los Angeles, California. Motion carried 8-0.

## **Membership**

Chairman Mansourian introduced Joe Whiteford as a Voting member representing California Highway Patrol.

## **Public Comments:**

Chairman Mansourian asked for public comments on any item not appearing on the agenda.

Chad Dornsife talks in general about the Federal "Manual on Uniform Traffic Control Devices" (MUTCD). He stated that every state must comply with the MUTCD and if a State wants to deviate or change standards they must go through the federal process. Chad added that a traffic engineer does not have authority to deviate from the federal standards. The deviation can be requested through the federal process only. Traffic engineers must apply approved standards outlined in the MUTCD.

Jim Lissner talks about the policy on yellow timing for the signalized intersection. He stated that when the Committee took action on this item, some of the members had a conflict of interest and in his opinion, voting was not fair. Two members who voted for the recommendation belongs to an insurance company, and he believes that they have a conflict of interest due to their business affiliation. Other two members were from the City of Modesto and the City of Los Angeles, both cities operate red light cameras. He stated that he has written a letter to the League of California Cities requesting to replace both members with alternate members while this item is on the agenda for public hearing. He requested that the item "yellow timing at signalized intersections" should be reopened and placed on the future Committee agenda and members with a conflict of interest should excuse themselves from the hearing process.

## **06-1 Proposal to Amend MUTCD Section 4E.09**

Chairman Mansourian asked Devinder to introduce agenda item 06-1, proposal to amend the MUTCD Section 4E.09.

Devinder stated that it has been Caltrans policy to limit the distance between the pedestrian push button and the crosswalk to 5 feet, not 10 feet, as the MUTCD standards. He added that it was an oversight when Caltrans adopted the MUTCD 2003 along with the California Supplement. He requested to John Fisher if he could add to this.

John Fisher stated that the proposed guidance is the current practice in California. There were a number of reasons for that, such as if a push-button is located too far from a crosswalk, the pedestrian will disregard the activation and will start crossing the intersection which could be unsafe. Secondly, if the push-button is too far it would not be convenient to use for disabled, visually impaired and wheelchair pedestrians. He further added that it was overlooked while the Committee was working on the adoption of the MUTCD and California Supplement. He supported the adoption of the proposed amendment.

Hamid Bahadori agreed with Fisher's comments.

Chairman Mansourian asked for public comments.

Johnny Bhullar stated that while he was working on the combining of the MUTCD 2003 and California Supplement he noticed a number of sections in part IV that either has duplication or some editorial corrections that are required. There are a few other sections that will be brought to the Committee for corrections.

Chad Dornsife stated that states could enhance the federal standards however they could not deviate.

Hamid Bahadori stated that it is an enhancement to the MUTCD standards.

Chairman Mansourian asked for other comments.

There were none.

**Motion:** Moved by Hamid Bahadori, seconded by Merry Banks, recommends that Caltrans adopt the proposed amendment as mentioned in the agenda packet.

Motion carried 8-0

The amendment is as follows:

Section 4E.09

Guidance:

B. Within 1.5 m (5 ft) of the crosswalk extended boundaires.

*Also change the vertical in figure 4E-2 from "3mm (10') to 1.5 m (5')*

**Action:** Item completed.

## **05-7 Automated Flagger Assistance Devices (AFAD's)**

Chairman Mansourian stated that Placer County was authorized to conduct an experiment with AFAD, and the County has submitted a final report on the experiment to the CTCDC. Chairman Mansourian invited Placer County to share their report with the Committee.

Terry Gibso, Maintenance Supervisor, stated that Placer County has completed the experimentation authorized by the Committee during the July 28, 2005 meeting. During this experimentation the Road Maintenance Division used a Red/Yellow lens AFAD supplied by First Call Flagging. The AFAD was used on 2 lane road maintenance operations located throughout the county. Placer County is continuously involved in maintenance operations on 2 lane roads that require flagging. Exposing the traditional human flagger presents the opportunity for serious injury. Drivers are more likely to become agitated when in Temporary Traffic Control (TTC) zones. The general driving public has many distractions that can adversely affect the safe passage through a TTC zone (E.g.-Cell phones, eating while driving, and multi-tasking).

Terry stated that during operations of the device, the County found the unit to be well understood by the public. The device did not cause any adverse conditions. It performed as it was intended. The unit was easy to setup and use. No vehicular crashes or incidents involving injury to the human flagger were recorded at any of the experimentation sites. This study found that using the First Call Flagging AFAD was a cost-effective way to provide for a one-lane closure. The AFADs yellow and red lens helped to gain the attention of motorists, and compliance seemed better than with a traditional human flagger. Driver speeds also seemed to slow down when using the AFAD. The panic button is helpful in alerting others in the work area of unexpected conditions.

Terry added that the primary benefit associated with the use of Red/Yellow lens AFAD's is that it limits the exposure to the traditional flagger. In addition it acts as a calming device. The visibility of the machine is greatly improved over the traditional flagger. This directly translates to slower speeds through the TTC zone. It allows for one person to be in charge of the work zone, eliminating the possibility of confusion. Additionally, it frees up personnel to do other production work. The use of Red/Yellow lens AFADs has the potential for significant cost savings by redirecting our human workforce to other production efforts, while substantially increasing the safety of the entire work crew.

Terry suggested that the CTCDC should consider recommending Caltrans to request a state level interim approval from FHWA for the AFADs. Terry Gibso asked if there were any questions for him.

Jacob Babico asked whether the system could be used for a curvy roadway.

Terri responded no, the person controlling the traffic should be able to see both directions of controlled traffic.

Hamid commented on whether California should ask for approval with amended guidelines based on the lessons learned by Placer County and by other states. Hamid further asked whether Placer County used their own guidelines or if they used FHWA guidelines.

Terry responded that the FHWA guidelines were used.

Jacob commented that the device could be used only on a two-lane roadway with one way traffic control.

John Fisher asked what is the length and height of the mast arm? How does the mast arm get activated?

Terry responded that the mastarm is halfway through the lane line and the height of the mast arm is 3 to 3 ½ feet. The person controlling the traffic activates the mastarm and the device to control traffic.

Bret Goss stated that FHWA has spent a lot of time in the development of interim guidelines. He commented that the Committee members have raised good questions. One question was what is the maximum distance between the traffic controls. FHWA guidelines state that a maximum opposing distance between two controlling opposite directions shall not be more than 300m (100'). He stated that the device has a 120 decimal alarm system to warn the work zone area in a situation when a driver ran through the work zone area. He has suggested to the FHWA team to change the name because it is not an automated device, it is operated by a human with a remote control. He stated that currently 17 states have received an interim approval on Red/Yellow lens AFADs from FHWA. The device has proven to increase awareness, slow down drivers, and limit exposure to traditional human flaggers. He requested the Committee to ask FHWA for interim approval for the State of California.

Hamid Bahadori asked whether California should ask for approval based on the lessons learned by the other states and during the experiment by Placer County.

Bret stated that would be a good idea.

John Fisher asked whether you or any one else initiated a request with FHWA to change the name from automated to activated or remote controlled flagging system.

Bret responded that he has requested to Mr. Ken Wood, who is in charge of TTC devices, to change the name because it is not an automated device, it is controlled by a human.

Devinder stated that currently under the FHWA guidelines any public agency could get approval from the FHWA by simply writing a letter. What is the purpose of asking Caltrans to ask for interim approval at state level? By doing so, the state have to keep inventory of the agencies who use the AFADs.

Chairman Mansourian asked for public comments.

Matt Schmitz, FHWA, stated that FHWA would be comfortable to grant approval to any agency if they request for the use of AFADs. If the state would like to apply for a statewide approval, this can be done for California too. It has been done in Illinois, Vermont and few other states.

Johnny Bhullar, Caltrans, added that when an agency get approval from FHWA for the use of interim approved device, the MUTCD Section 1A.10 says that the agency shall inform the state about the location of the device. He further added that FHWA is not asking for further data from an agency that uses the interim approved device. He stated that the Committee might want to keep a list of interim approved devices by the FHWA.

Joe Jeffery supported the interim approval and requested that California should ask for State level approval. However, he added that the Committee ensures that it does not limit a certain device. All automated flagging systems should be able to be used as long as they meet FHWA guidelines.

Chand Dornsife stated that their group is planning to expand the use of this device at checkpoints by including different features, such as cameras and two-way communications.

Chris (last name not mentioned), who represents a public utility company in the Bay Area, stated that they would like to use the device on certain utility projects and supported that the Committee should ask for statewide approval.

Chairman Mansourian opened discussion amongst Committee members and stated that the Committee is dealing with two issues. First, acceptance of the experimental report submitted by Placer County and second, whether to request for interim approval for the whole state.

Jacob Babico stated that the device could be used only for two-lane highways where traffic is approaching one lane.

John Fisher stated that he could support the interim approval.

Joe Whiteford asked about the safety operation.

Bret responded that the device comes with an alarm system to alert the work zone area if a driver ran the traffic control or for any other hazard.

Chairman Mansourian asked the Committee members for the acceptance of the experimental report.

The Committee unanimously accepted the report.

Chairman Mansourian asked whether the Committee would like to recommend Caltrans to ask FHWA for statewide approval.

**Motion:** Moved by Hamid Bahadori and seconded by Merry Banks recommending Caltrans ask FHWA for interim approval for the State of California.

Motion carried 7-1 (Devinder Singh abstained)

**Action:** Item completed.

**05-1 Experiment with a Pedestrian Enhanced Delineation System for Crosswalks at the Signalized Intersection**

Chairman Mansourian stated that the Committee discussed this item during the March 2005 meeting. At that time, the Committee asked the City of Pasadena to approach FHWA for the approval of the experiment. The City of Pasadena has received approval from FHWA and an approval letter has been included in the agenda packet. The City of Pasadena requests concurrence from the Committee.

The Committee members agreed with the request.

**Motion:** Moved by John Fisher Seconded by Ed von Borstel, the Committee concurred with the FHWA approval as outlined in their letter dated December 20, 2005 to conduct experimentation with a Pedestrian Enhanced Delineation System for Crosswalks at the Signalized Intersection.

Motion Carried 7-0.

**Action:** Item approved for experimentation.



## **05-10 Proposal for the Watershed Boundary Sign**

Chairman Mansourian asked the water district of the City of San Diego to present their proposal on “watershed” signs.

Tedi Jackson handed out a revised sign standard and specification and shared a PowerPoint presentation with Committee members. Tedi stated that Gerry Meis’ office redesigned the sign and they prefer to use the revised sign because it is simple and can be installed on a single post. Tedi shared the goals and benefits by using the watershed signs. She stated that the signs will create awareness and educate the public on the importance of protecting watersheds. The signs will be helpful in reducing storm water pollution, and increase awareness and education of the importance of preserving natural resources. She stated that signs would decrease the trash or pollutants on the roadways. The water District is working with the City of San Diego for funding. The sign will be installed at the following locations:

- a) Hodges Watershed at I-15
- b) San Vicentan Watershed at SR67
- c) El Capitan Watershed at I-8

Tedi informed the Committee that the San Diego Water District has received 20 letters of support. The Water District will do a public awareness program by using the newspaper, radio, television, billboards, movie ads, city/county cable access TV and website. Additionally, there will be online survey. The Water District will collect the after data to study whether the sign had positive influence on road users. Tedi requested the Committee for approval to conduct experimentation with the watershed sign.

Chairman Mansourian opened discussion amongst Committee members.

John Fisher asked if the Committee is voting on the sign which was handed out instead of the signs which were included in the agenda packet.

Tedi responded that is correct.

Hamid Bahadori stated that revised sign is simple and he appreciated the water district for their efforts to get support from other water district and also coming to the Committee three times for this item.

There were no other comments.

Chairman Mansourian asked for public comments.

There were none.

**Motion:** Moved by Hamid Bahadori and seconded by Merry Banks, authorize the Water District City of San Diego to experiment with the revised Watershed Sign as shown, then follow up and keep the Committee informed on the experimental status.

Motion carried 8-0.

Illustration of sign is as follows:



48" x 54" Sign

4" Series D Lettering

**Action:** Item approved for experimentation.

## **06-2 Proposal to Experiment with Colored Bike Lane**

Chairman Mansourian asked the City of San Francisco to present their request “Proposal to Experiment with Colored Bike Lane” to the Committee.

Oliver Gajda, the City and County of San Francisco (SF) Municipal Transportation Agency Stated that the supervisors of SF County have asked to improve the bike facility in the City of San Francisco. The City has been working for the past decade to implement on-street bikeway projects in order to encourage cycling, improve safety, and improve the quality of bicycling so that it becomes an integral part of daily life. To address the various conditions along San Francisco’s streets, a series of Supplemental Design Guidelines were developed as part of the 2005 San Francisco Bicycle Plan update. These design concepts are intended to further clarify unique facility situations within San Francisco and propose additional experimental facilities like colored bike lanes.

Oliver added that the problems in San Francisco’s bike lanes are more unique because of the existing design standards. Typically, bike lanes are installed on the right-hand side of the road adjacent to a curb or parked cars. However, in the City of San Francisco, some examples of these ‘unique situations’ include: bikes lanes adjacent to narrow turning lanes and travel lanes, left turn-lane bike lanes, advance stop bar “bike boxes”, and left-side bike lanes. In these types of installations, additional attention by the bicyclists and motorists is required to re-emphasize proper lane placement and to attempt discouraging the encroachment of the bicycle lane by motor vehicles. A colored treatment could bring more awareness and compliance to these types of bicycle facilities. Oliver handed out a colored map with potential location (situation ‘A’ and situation ‘B’) for colored pavements. He pointed out a situation ‘A’ on the map and stated that the City and County of San Francisco would like to address areas where both the bicyclist and motorist are crossing paths to one another. A colored treatment would attempt to emphasize the space as an area of potential conflict, where either mode may cross the other’s path of travel. This colored application (situation ‘B’) would be distinct from the previously mentioned situation ‘A’.

Oliver stated that the City and County of San Francisco propose to evaluate the existing conditions at various study locations. After a baseline condition is established, a green colored treatment will be applied as “fill” within the bicycle lane. Situation ‘A’ would be demarcated with a solid colored (green) bike lane where the bike lane lane-markings are solid. No colored treatment will be applied where there is a dashing of the bike lane. Situation ‘B’ would be demarcated with a dashed colored (green) bike lane where the bike lane markings (if present) are dashed.

Oliver mentioned other recent federal studies conducted by the City of Chicago, City of New York, and the State of Vermont, all of which recommend using the color green. The Bicycle Technical Committee (BTC) and the Pavement Markings Technical Committee (PMTTC) of the National Committee on Uniform Traffic Control Devices (NCUTCD) have repeatedly suggested the colors green or magenta. The City of Chicago compiled a table that compares the different colors defined within the Manual of Uniform Traffic Control Devices (MUTCD). While there is an indication that the color blue might be more visible, it’s association with reserved spaces for persons with disabilities, dissuades its use. The City of Chicago’s table was included in the agenda packet. Currently, the standard treatment for bike lanes is not to colorize them.

Oliver also shared ongoing studies with the Committee members, such as the City of New York: Solid Green Bike Lanes within curbside bike lane (Ongoing), City of Chicago: Solid Green Bike Lanes in the transition area of a bike lane (Ongoing), State of Vermont, South Burlington: Solid Green Bike Lane in a potential conflict area (Ongoing) *Experiment No. IX-67 (E)* City of Portland, Oregon: Solid Blue Bike Lane in transition area of a bike lane (Completed) *Report No. FHWA-RD-00-150, August 2000*

Oliver stated that the City of San Francisco proposes solid and dashed colored treatments. By applying colored treatments in transition/conflict areas and areas of encroachment at the same time, the City of San Francisco would like to study the effectiveness of the treatment in these two types of situations. By applying a dashed colored treatment in areas of transition/conflict, it would be consistent with the existing dashed striping of bike lanes in transitional areas.

Oliver further stated that if resources allow, San Francisco would apply several different colored materials along a sample roadway to test the relative wearability, ease of application, and maintenance. The City and County of San Francisco will evaluate the existing conditions at study locations. After a baseline condition is established, a green colored treatment will be applied as “fill” within the bicycle lane. The variable that will be studied in this proposed experiment is the addition of the green markings for two types of generalized situations:

The purpose of Situation ‘A’ will be in reducing encroachment by motorists by demarcation of a solid colored (green) bike lane in areas of potential motor vehicle encroachment.

The Situation ‘B’ will highlight conflict/weave areas by demarcation of a dashed colored (green) bike lane in areas of transition (merging/weaving) or conflict.

Oliver mentioned the locations of experiment are:

The following is a list of anticipated locations, additional locations might also be included.

**Situation A: Reducing Encroachment by Motorists**

- A.1 Market Street at Freeway/Octavia Blvd. (No Right Turns are allowed across bike lane)
- A.2 Market Street at 10th Street (Through bike lane between narrow lanes)
- A.3 Howard Street at 11th Street (Left turn bike lane)
- A.4 14th Street at Folsom Street (Advanced stop line or “Bike Box”)
- A.5 Fell Street from Scott to Baker Streets (Left side bike lane between narrow travel lanes and parking lanes)

**Situation B: Highlighting Conflict/Weave Areas**

- B.1 Cesar Chavez at 101 entrance (Entrance to Bike Path)
- B.2 San Jose Avenue at Guerrero Street (Highlighting predominant through movement)

Oliver told the Committee that the City and County will record the observations by video with before and after data collected and tabulated. Each location will be observed multiple times, during the peak period (i.e., 7am-9am or 4pm-6pm). The following observations will be recorded:

- o Number of motor vehicles encroaching in the bicycle lane
- o Motorists distance of encroachment into bicycle lane
- o Number of conflicts\* between bicyclists and motorists
- o Vehicle and Bicycle volumes
- o Bicyclist behavior (signaling, shoulder checks, etc.)
- o Driver behavior (signaling, correctly entering a bike lane when crossing it, frequency of aggressive behavior, etc.)
- o Durability of the colored bicycle lane treatment

\*Conflicts will be defined by the researcher prior to the beginning of the study. Typical indications of a conflict are sudden braking, swerving, or acceleration. Variable interpretations of what constitutes a conflict will be minimized by having the same researcher viewing before and after data.

Oliver stated that once existing conditions are documented, the colored treatment will be applied. Several weeks will be allowed before the collection of “after” data resumes. After data collection will follow the same observations that were during the existing data collection. In addition, user surveys (both motorists and bicyclists) will be utilized to collect information on user perception of the colored lane treatments.

In conclusion, Oliver stated that the San Francisco Municipal Transportation Agency would be the sponsoring agency. Consultant services will be utilized as needed. The San Francisco Municipal Transportation Agency would remove experimentation installations upon completion of the experiment if the Committee reaches a decision that a change to the California Supplement of the MUTCD is not warranted, nor consistent with the MUTCD. Oliver asked for the approval of experimentation with green colored bike lanes.

Chairman Mansourian asked Committee members if they had questions for Oliver.

Jacob Babico asked if the proposed color pavement would not have retroreflective material.

Oliver responded that FHWA requires retroreflective color pavement.

Jacob enquired whether the beads (retroreflective material) would be retained in a slurry material.

Oliver responded that they working with a vendor and he is present in the meeting to answer any questions in that regard.

John Fisher asked whether this would be paint on top of an asphalt pavement.

Oliver responded no, paint does not have durability over a period of time on the asphalt pavement.

John Fisher further asked whether to consider standard signs and bike lane symbols on top of the pavement, in addition to the color pavement. He commented that he would prefer to use signs and symbols in addition to the color pavement. John further asked that in the proposal, solid and dashed colored pavement would be tested separately in different situations. John inquired whether the green color pavement would be a traffic control device or not.

Oliver responded that they could consider signs and symbols if the Committee wants. The study will obtain data to see how bikers and motorists behave in exclusive bike lane areas and in the weaving area. Oliver noted that according to the MUTCD Section 3E.01, when color pavement is used for guidance or regulation of traffic, it is a traffic control device.

Hamid Bahadori stated that the MUTCD is very clear about colored pavements. The MUTCD 2003 Section 3E.01 says, “colored pavements shall not be used as a traffic control device, unless the device is applicable at all times.” They are specific about the colors, only yellow and white are recommended. Hamid stated that in his opinion, the City of San Francisco should first approach the FHWA, then the CTCDC.

Joe Whiteford asked whether the City has any documented problems in regards to bicycle collisions with motor vehicles. He further added that yesterday they spend a full day discussing older drivers in California. He was wondering if the proposal would create confusion to older drivers. Joe pointed out to diagram A-3, A-5 and stated that those conditions might cause confusion to older drivers.

Oliver responded that the parking is allowed 24 hours a day, seven days a week, and some bike lanes are at the left side of the roadway. However, that roadway is a one-way street. The collision data has not been documented. However, a before and after study will include that information.

Jacob Babico stated that diagram B-1 illustrates dashed paint, however, there is no six-inch white broken strip. In that case, colored pavement is irrelevant, because there is no bike lane strip.

John Fisher commented that if a motorist wants to park his vehicle in situation A-5, they would have to cross over the designated bike lane which would be an illegal movement.

Oliver responded that it is a one way street and parking is on both sides of the street. The motorist has to move in the turn lane to park in that situation.

John Fisher asked if the City and County have already applied for FHWA approval.

Oliver responded not yet, they wanted to first approach for the CTCDC for approval. However, the City and County of San Francisco will apply with FHWA for approval of experimentation. Oliver added that he had a telephone conversation with FHWA and during the conversation, FHWA wanted retroreflective colored pavement and preferred a green color pavement for bike lanes.

Hamid Bahadori commented that whether the City is considering conducting friction tests with the new proposed color pavement to ensure that it would not cause a skidding problem.

Chairman Mansourian asked for public comments.

Joe Garrison, Valley Slurry Seal, stated that their company is working on the retroreflective issue as well as friction testing.

Matt Schmitz, FHWA, stated that even though the MUTCD is clear about the color to be used for the pavement, the purpose of experiment is to test new innovations. Matt stated that regardless of the other devices such as signs and pavement marking, colored pavement, if it is used for guidance or regulation, it is considered a traffic control device.

Chairman Mansourian stated that there are two issues front of the Committee, either to approve the experiment or to ask the City to approach the FHWA for approval. He asked the Committee member's opinions.

The committee members were evenly divided on the experiment approval.

Hamid stated that when the City of Pasadena approached the Committee for the pedestrian enhanced delineator experiment approval, the Committee asked Pasadena to go to FHWA because their request was in conflict with the MUTCD language. Therefore, the City of San Francisco should first get approval from FHWA, because of the proposed color which is in conflict with the MUTCD language.

Chairman Mansourian asked Oliver if the City had any disagreement about first going to the FHWA for experimental approval.

Oliver responded no. There were no other comments.

**Motion:** Moved by Jacob Babico and seconded by Ed von Borstel suggested that the City consider first getting approval from the FHWA. The Committee further asked the City to address the questions raised by the Committee members, when they come back to the CTCDC for approval.

Motion carried 8-0.

**Action:** Item deferred by the Committee until the City of San Francisco receives approval from FHWA.

## **Discussion Items**

### **04-7 Re-Evaluation of the Yellow Timing for the Signalized Intersections**

Chairman Mansourian stated that this item was placed on the agenda, because when Caltrans issued a final policy a year ago, they promised to bring the item back to the Committee to see whether further evaluation would be needed. Chairman Mansourian further added in his opinion, discussion items are usually discussed amongst Committee members and public participation is not required. However, the Chair was approached by Mr. Jim Lisner and public participation was requested. Chairman Mansourian stated that since the Committee is not sure about public participation on discussion items, he would invite the public to provide their comments.

Chairman Mansourian asked for public comments.

Jim Lisner stated that he maintains a website called Highway Robbery. He urged the Committee to reopen this item and place it under the action items. The MUTCD recommends 3 to 6 seconds for the yellow timing. He stated that California should take the lead and adopt a minimum yellow timing based on the posted speed limit plus 10 mph or speed limit established rounded based on the upper 5 mph increment to the 85<sup>th</sup> percentile speed. He further suggested having a minimum of 4 seconds for the left turns movement. He stated that by increasing a half-second yellow timing, it cuts down more than half of the violations. He gave examples from the City of Mesa in Arizona and the City of San Diego in California, where a slight increase in the yellow timing reduced the violation by more than half. He suggested for the reopening of the item.

Chad Dornsife stated that the U.S. law says a traffic engineer must go out and observe the field conditions for the adjustment of timing for a signalized intersection. He added that some cities are making revenues from the red light cameras. He stated that California should revise the policy to require a traffic engineer to go out in the field, observe the operation of the signalized intersection and make adjustments to the timing based on the field conditions.

There were no other public comments.

Chairman Mansourian opened discussion amongst the Committee members. He asked if any member wanted to reopen this item.

Jacob Babico stated that the policy adopted a year ago is adequate, consistent, and that it is a minimum requirement for the yellow timing.

John Fisher stated that the Committee and Caltrans had identified the issue and went beyond the MUTCD requirements to address the issue. The Committee had a thoughtful process in addressing the problem and has shown leadership to clear confusion in setting a minimum yellow timing. The establishment of speed limit process adopted by California is in compliance with the MUTCD. John stated that he does not believe there is a need to reopen this matter.

Hamid Bahadori agreed with John's comments. Hamid added that the Auto Club sponsored AB1022, which requires local agencies to establish the minimum yellow timing according to the Caltrans Traffic Manual and now with the California Supplement. He added that before this law, there was no requirement for local agencies in the establishment of a minimum yellow timing. AB1022 says that if you use red light cameras, you must use Caltrans guidelines for the yellow timing. He stated that if someone wants to reopen this item he will support it, however, he would not support different standards for the red light camera and for the regular intersection.

Joe Whiteford stated that he was not a Committee member when the issue was addressed. He would consider reopening the item unless someone educates him about the decision taken place in regards to this matter.

Chairman Mansourian stated that a sub-committee was formed involving Committee members and a few outside members which represented legal and traffic division. The sub-committee spent tremendous time and recommended three alternatives to the full Committee. During the December 2004 meeting, the Committee had a lengthy discussion and recommended Caltrans to adopt the current policy.

Joe withdrew his comments.

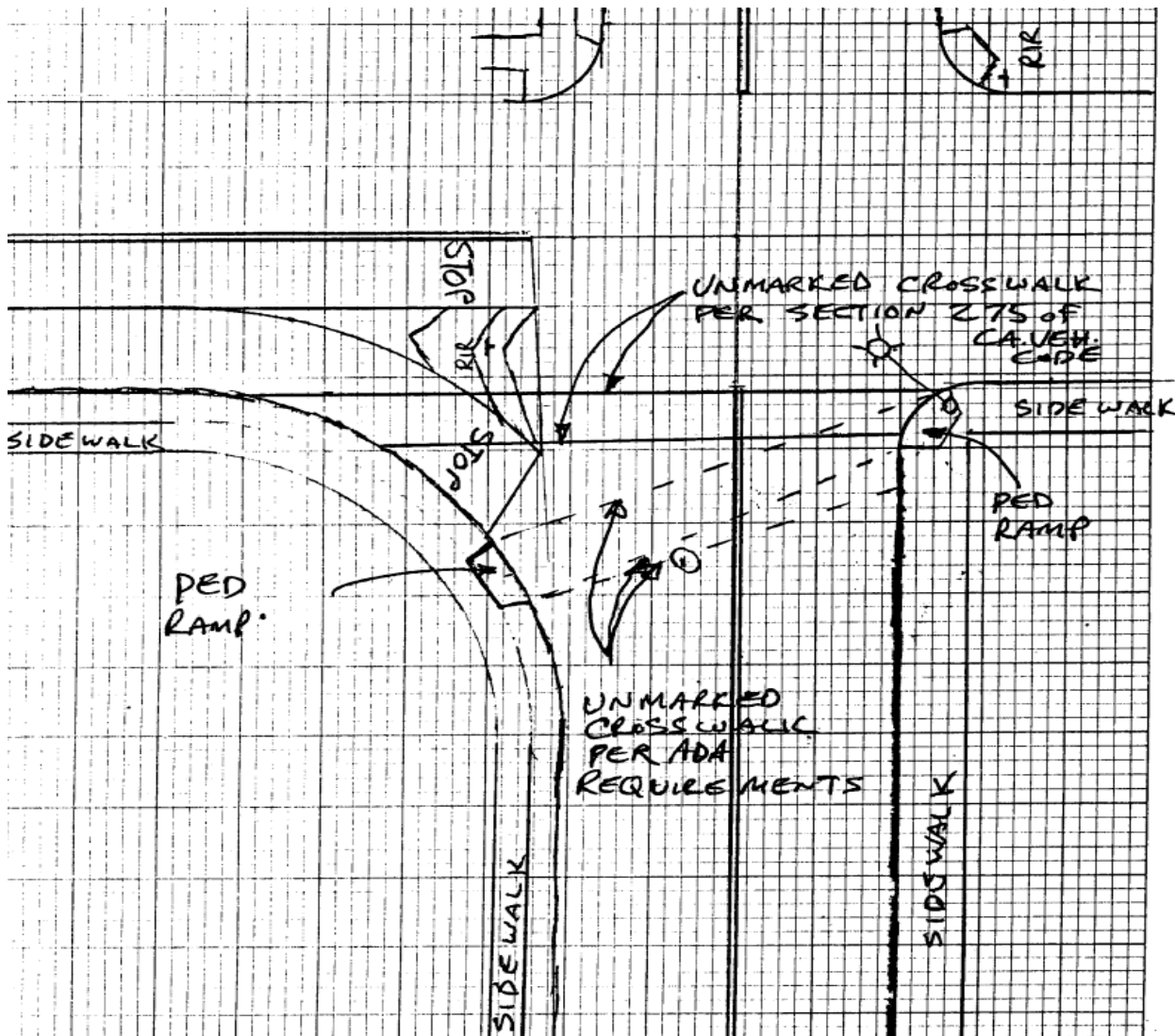
After listening to comments from the Committee members, Chairman Mansourian stated that since he does not see the support from any of the member to reopen the item, the item is closed.



**06-3 Conflict between California Vehicle Code Section 275 and Federal American with Disabilities Act (ADA)**

Chairman Mansourian asked Hamid Bahadori to address agenda item 06-3.

Hamid stated that Mr. Norman J. Suker, Civil and Traffic ENGINEER, NSA, INC., brought this issue to his attention. The concern was that the California Vehicle Code (CVC) Section 275 conflicts with American Disabilities Act (ADA) in regards to unmarked crosswalks. Hamid asked whether other Committee members ever received any complaints about this. The following rough sketch illustrates the conflict at an intersection:



Chairman Mansourian asked Committee members if they had any concerns or if this issue was brought to your attention. There were no comments from the Committee members. Chairman Mansourian stated that since none of the Committee members has any comments and there was no desire to include this as an agenda item, the item is closed.

#### **06-4      Calm the Safety Zone**

Chairman Mansourian asked City of San Francisco to present their information item.

Javad Mirabdal stated that the City and County of San Francisco conducted a traffic safety study and came up with safety improvements for pedestrians. One of the proposals was to improve the pedestrian safety along Market Street. He stated that he would like to share the proposed project to “Calm the Safety Zone” next to the transit boarding islands along Market Street. Market Street is one of San Francisco’s main streets, experiencing heavy use by transit patrons, pedestrians, bicyclists, and automobiles. This project is one of many actions recommended in the Market Street Study Action Plan to improve transportation on Market Street. The ‘safety zone’ is the area of curbside travel lane between the curb and the boarding island. This zone is a major point of conflict for all modes. Analysis has shown that most pedestrian collisions occur within this zone. Treatments to alert motorists of increased pedestrian traffic in the safety zone by coloring the pavement with improved signage may help in reduction of pedestrian-auto conflict. By slowing automobiles, it may also help reduce bike-auto conflict as well.

The City and County are planning to color the ‘safety zone’ yellow by either colored slurry or Macro-Grip and a pavement marking of ‘10 MPH’ will be installed in the safety zone as well. The speed limit marking will be white on black for better visibility. The City would conduct a before and after study to evaluate the effectiveness of this project. This project is schedule to be implemented in March or April of 2006.

Javed stated that the discussion amongst city engineers believes that this proposal is not a ‘traffic control device’, but it is a traffic safety measure that can be considered a roadway feature. Also, the City is not suggesting that this should be seen as a standard treatment at this time. Therefore, this project should not require the CTCDC approval as a traffic control device.

Javed stated that the City would like to know the Committee’s opinion on the proposal.

Chairman Mansourian stated that this is an information item only and that no discussion is needed.

Devinder commented that he placed this item under the information items because the City wanted to share their proposal with Committee members.

Javed stated that in his opinion this is not a traffic control device and wanted to share the proposal with Committee members and get feedback.

Chairman Mansourian asked other Committee members if they would like to provide input to Javed on the proposal.

Jacob Babico commented that the speed limit sign is not a standard sign and speed limit pavement marking should be in compliance with the California Supplement.

John Fisher commented that during the previous discussion on the green pavement color it was determined that was a traffic control device and he had difficulty to understand why a yellow color pavement is not a traffic control device. He further added that he was not sure how the yellow pavement would communicate with pedestrians. He suggested that the pedestrian barrier might be a better option.

Hamid Bahadori commented that yellow is specially reserved for flush or raised median islands separating traffic flow in opposite directions. He stated that regardless of whether this is a traffic control device or not, he suggested not using yellow pavement.

Joe Whiteford commented on the 10-mph speed limit sign and asked if that speed limit sign would be applicable at all times.

John Fisher responded that the 10-mph is applicable only during transit loading and unloading periods.

Matt Schmitz, FHWA, stated that the MUTCD talks about guidance and regulations when colored pavement is used. It does not talk about warning, and he wondered if that was left out knowingly. He asked Javed to contact him, and he will find the answer from the MUTCD team.

Oliver commented that they had debated in their office to determine whether this is a traffic control device or not, and the opinion of their office was it is not a traffic control device.

In conclusion, the Committee stated that the yellow pavement color is reserved for particular treatments and they do not endorse the proposal as presented. They suggested using a different color or some other alternative to improve pedestrian safety crossing.

**Off the Agenda Item:**

Chairman Mansourian stated that Johnny Bhullar mentioned that there are few interim approvals approved by the FHWA. He asked to place this item on the agenda for the Committee's discussion.

**Next Meeting:** The Committee decided to have the next CTCDC meeting on June 14, 2006 in Southern California. The Committee will have a workshop to discuss MUTCD comments on June 1, 2006 in Sacramento.

**Adjournment:** The meeting was adjourned at 2:15 PM